

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number
WO 2004/007591 A1

- (51) International Patent Classification⁷: C08G 77/04, C08I 83/04, C09D 183/04, C07F 7/08
- (74) Agents: WALSH, David, Patrick et al.; Appleyard Lees, 15 Clare Road, Halifax HX1 2HY (GB).
- (21) International Application Number: PCT/EP2003/007360
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 9 July 2003 (09.07.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
02254861.4 10 July 2002 (10.07.2002) EP
02255549.4 8 August 2002 (08.08.2002) EP
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except US*): SIG-MAKALON GROUP B.V. [NL/NL]; Amsterdamseweg 14, NL-1422 Uithoorn (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): PLEHIERS, Mark [BE/BE]; Rue Le Corregge, 21, B-1000 Bruxelles (BE). GILLARD, Michel [BE/BE]; Rue Jean Froissart, 6/102, B-1348 Louvain-la-Neuve (BE).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PROCESS FOR THE PREPARATION OF POLYORGANOSILYLATED CARBOXYLATE MONOMERS OR POLYMERS THEREOF

(57) Abstract: The present invention relates to a process for the preparation of polyorganosilylated carboxylate monomers or polymers thereof, comprising the steps of reacting a cyclosiloxane of formula (R₄R₅SiO)_n with an unsaturated organosilylated carboxylate monomer or a copolymer or a polymer thereof under the presence of a suitable catalyst.

WO 2004/007591 A1

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/07360

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08G77/04 C08L83/04 C09D183/04 C07F7/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08G C08L C09D C07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 063 887 A (OKAWA TADASHI) 16 May 2000 (2000-05-16) column 1, line 10 -column 3, line 62; claims; example 1	1-29
A	US 3 346 610 A (OMIETANSKI GEORGE M ET AL) 10 October 1967 (1967-10-10) claims 16-18; examples 1-7,11	1-29
A	US 4 593 055 A (LEINER HOWARD H ET AL) 3 June 1986 (1986-06-03) column 1, line 13 -column 5, line 68; examples	30,31
A	US 6 172 132 B1 (HIKIJI YASUTO ET AL) 9 January 2001 (2001-01-09) abstract; claims; examples	30,31

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

22 October 2003

Date of mailing of the international search report

29/10/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Kolitz, R

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/07360

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6063887	A	16-05-2000	JP 10168089 A	23-06-1998
US 3346610	A	10-10-1967	BE 651371 A	04-02-1965
			DE 1218446 B	08-06-1966
			FR 1411204 A	17-09-1965
			GB 1066574 A	26-04-1967
			NL 128599 C	
			NL 6409022 A	08-02-1965
US 4593055	A	03-06-1986	AT 43358 T	15-06-1989
			AU 573204 B2	02-06-1988
			AU 2497184 A	15-08-1984
			BR 8404738 A	26-12-1984
			CA 1295893 C2	18-02-1992
			DE 3478309 D1	29-06-1989
			DK 440684 A	14-09-1984
			EP 0131626 A1	23-01-1985
			HK 590 A	12-01-1990
			JP 5032433 B	17-05-1993
			JP 60500452 T	04-04-1985
			MX 159906 A	29-09-1989
			NO 843699 A , B,	17-09-1984
			NZ 206852 A	20-02-1987
			WO 8402915 A1	02-08-1984
			US 4594365 A	10-06-1986
			US 4687792 A	18-08-1987
US 6172132	B1	09-01-2001	AT 223464 T	15-09-2002
			DE 69623413 D1	10-10-2002
			DE 69623413 T2	07-08-2003
			EP 0775733 A1	28-05-1997
			HK 1002115 A1	03-01-2003
			WO 9638508 A1	05-12-1996
			JP 9048947 A	18-02-1997
			KR 235093 B1	15-12-1999
			KR 235095 B1	15-03-2000
			NO 970404 A	01-04-1997
			SG 77187 A1	19-12-2000
			SG 77188 A1	19-12-2000
			US 6110990 A	29-08-2000
			JP 9048946 A	18-02-1997
			JP 9048948 A	18-02-1997
			JP 9048949 A	18-02-1997
			JP 9194790 A	29-07-1997
			KR 235094 B1	15-03-2000